

Amendments to the Claims:

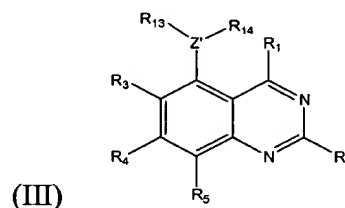
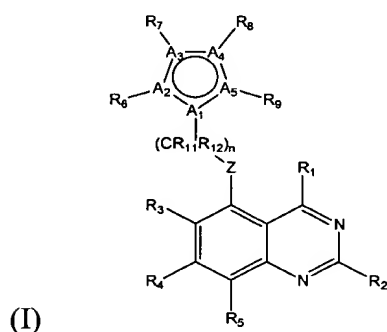
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of modulating the function of a serine/threonine protein kinase with a quinazoline-based compound, comprising the step of contacting cells expressing said serine/threonine kinase with said compound, or a pharmaceutically acceptable salt thereof,

wherein said function of said serine/threonine protein kinase is related to a cancer selected from the group consisting of lung cancer, ovarian cancer, breast cancer, brain cancer, intra-axial brain cancer, colon cancer, prostate cancer, Kaposi's sarcoma, melanoma, and glioma; and

wherein said compound has the formula set forth in formula I or III:



wherein:

(a) Z is oxygen, NX_1 , or sulfur, where X_1 is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(b) n is 0, 1, 2, 3, or 4;

(c) A_2 , A_3 , A_4 and A_5 are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of A_2 , A_3 , A_4 and A_5 is nitrogen, oxygen, or sulfur, said A_2 , A_3 , A_4 and A_5 is not substituted with R_6 , R_7 , R_8 or R_9 ;

A₁ is nitrogen or carbon;

(d) R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈ and R₉ are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) NX₂X₃, where X₂ and X₃ are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(iv) halogen or trihalomethyl;

(v) a ketone of formula -CO-X₄, where X₄ is selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(vi) a carboxylic acid of formula -(X₅)_{n5}-COOH or ester of formula -(X₆)_{n6}-COOX₇, where X₅, X₆, and X₇ are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n₅ and n₆ are each independently 0 or 1;

(vii) an alcohol of formula -(X₈)_{n8}-OH or an alkoxy moiety of formula -(X₈)_{n8}-OX₉, where X₈ and X₉ are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n₈ is 0 or 1, and where said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(viii) -NHCOX₁₀, where X₁₀ is selected from the group consisting of alkyl, hydroxyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties, wherein said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(ix) -SO₂NX₁₁X₁₂, where X₁₁ and X₁₂ are selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties; and

(x) a five-membered or six-membered heteroaryl or six-membered aryl ring moiety optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester moieties; or

~~(e) R₃, R₄, R₅, R₆, R₇, R₈ and R₉ are independently OX₇, where X₇ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and a six membered aryl or a five or six membered heteroaryl ring moiety;~~

(~~fe~~) any adjacent R₃, R₄, and R₅ or any adjacent R₆, R₇, R₈, and R₉ are fused together to form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety, wherein said five-membered or six-membered heteroaryl or six-membered aryl ring comprises two carbon atoms of said quinazoline-based compound to which R₃, R₄, and R₅ or R₆, R₇, R₈, and R₉ are attached; and

(~~gf~~) R₁₁ and R₁₂ are independently selected from the group consisting of

(i) hydrogen;

(ii) saturated or unsaturated alkyl; and

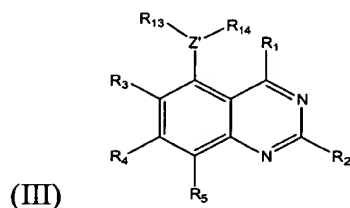
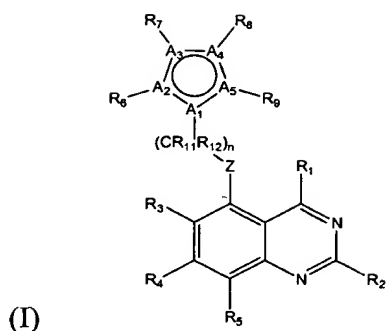
(~~hg~~) Z' is carbon or nitrogen and R₁₃ and R₁₄ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member, ~~wherein said ring is optionally substituted with one, two or three alkyl, halogen, trihalomethyl, carboxylate, and ester moieties.~~

Claims 2 – 10 (Cancelled)

11. (Currently amended) ~~The method of claim 1, wherein said quinazoline-based compound has the formula set forth in structure I or III~~ A method of modulating the function of a serine/threonine protein kinase with a quinazoline-based compound, comprising the step of contacting cells expressing said serine/threonine kinase with said compound, or a pharmaceutically acceptable salt thereof,

wherein said function of said serine/threonine protein kinase is related to a cancer selected from the group consisting of lung cancer, ovarian cancer, breast cancer, brain cancer, intra-axial brain cancer, colon cancer, prostate cancer, Kaposi's sarcoma, melanoma, and glioma; and

wherein said compound has the formula set forth in formula I or III:



wherein:

(a) Z is oxygen, NX_1 , or sulfur, where X_1 is selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(b) n is 0, 1 or 2;

(c) A_2 , A_3 , A_4 and A_5 are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of A_2 , A_3 , A_4 and A_5 is nitrogen, oxygen, or sulfur, said A_2 , A_3 , A_4 and A_5 is not substituted with R_6 , R_7 , R_8 or R_9 ;

A_1 is carbon or nitrogen;

(d) R_1 and R_2 are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) NX_2X_3 , where X_2 and X_3 are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(iv) halogen or trihalomethyl; and

(v) five-membered or six-membered heteroaryl ring moiety;

(e) R₃, R₄, R₅, R₆, R₇, R₈ and R₉ are independently selected from the group consisting of:

- (i) hydrogen;
- (ii) saturated or unsaturated alkyl;
- (iii) NX₄X₅, where X₄ and X₅ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; and
- (iv) halogen or trihalomethyl;
- (v) -OX₇, where X₇ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and a six-membered aryl or five- or six-membered heteroaryl ring moiety;

(f) any adjacent R₃, R₄, and R₅ or any adjacent R₆, R₇, R₈ and R₉ are fused together to form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety, wherein said five-membered or six-membered heteroaryl or six-membered aryl ring comprises two carbon atoms of said quinazoline-based compound to which R₃, R₄, and R₅ or R₆, R₇, R₈, and R₉ are attached;

(g) R₁₁ and R₁₂ are independently selected from the group consisting of

- (i) hydrogen;
- (ii) saturated or unsaturated alkyl; and

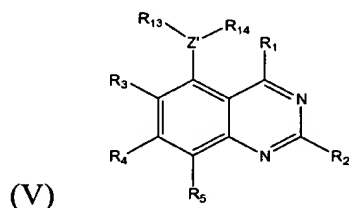
(h) Z' is nitrogen and R₁₃ and R₁₄ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member, wherein said ring is optionally substituted with one, two, or three alkyl, halogen, trihalomethyl, carboxylate, and ester moieties.

12. (Currently amended) ~~The method of claim 1, wherein said quinazoline-based compound has the formula set forth in formula V~~ A method of modulating the function of a serine/threonine protein kinase with a quinazoline-based compound, comprising the step of contacting cells expressing said serine/threonine kinase with said compound, or a pharmaceutically acceptable salt thereof,

wherein said function of said serine/threonine protein kinase is related to a cancer selected from the group consisting of lung cancer, ovarian cancer, breast cancer, brain cancer,

intra-axial brain cancer, colon cancer, prostate cancer, Kaposi's sarcoma, melanoma, and glioma; and

wherein said compound has the formula set forth in formula V:



wherein:

- (a) R₁ and R₂ are independently selected from the group consisting of:
 - (i) hydrogen; and
 - (ii) NX₂X₃, where X₂ and X₃ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;
- (b) R₃, R₄, and R₅ are independently selected from the group consisting of:
 - (i) hydrogen;
 - (ii) saturated or unsaturated alkyl; and
 - (iii) NX₂X₃, where X₂ and X₃ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; and
- (c) Z' is nitrogen and R₁₃ and R₁₄ taken together form a five-membered heteroaryl ring.

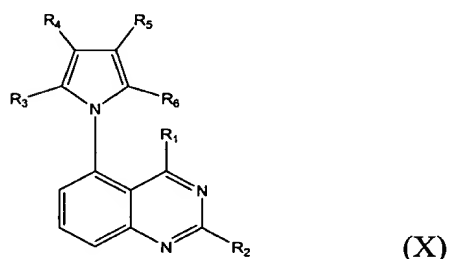
13. (Cancelled)

14. (Cancelled)

15. (Previously presented) A method of modulating the function of a serine/threonine protein kinase with a quinazoline-based compound, comprising the step of contacting cells expressing said serine/threonine kinase with said compound, or a pharmaceutically acceptable salt thereof,

wherein said function of said serine/threonine protein kinase is related to a cancer selected from the group consisting of lung cancer, ovarian cancer, breast cancer, brain cancer, intra-axial brain cancer, colon cancer, prostate cancer, Kaposi's sarcoma, melanoma, and glioma; and

wherein said quinazoline-based compound has a structure set forth in formula X:



wherein

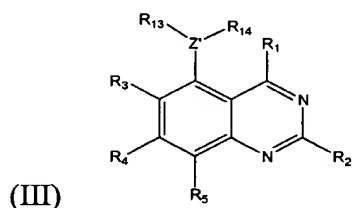
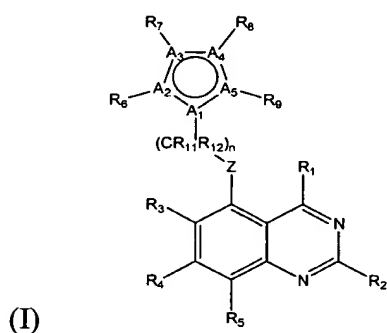
- (a) R_1 and R_2 are independently selected from the group consisting of hydrogen, and $-NH_2$, provided at least one of R_1 and R_2 is $-NH_2$;
- (b) R_3 , R_4 , R_5 , and R_6 are independently selected from the group consisting of
 - (i) hydrogen;
 - (ii) saturated or unsaturated alkyl;
 - (iii) NX_4X_5 , where X_4 and X_5 are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;
 - (iv) halogen;
 - (v) $C(X_6)_3$, where X_6 is selected from the group consisting of fluorine, chlorine, bromine, and iodine; and
 - (vi) OX_7 , where X_7 is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and six-membered aryl or five- or six-membered heteroaryl ring moiety.

16. (Cancelled)

17. (Previously presented) A method of treating an abnormal condition in an organism in need thereof, wherein said abnormal condition is a disease associated with an aberration in a signal transduction pathway characterized by an interaction between a

serine/threonine protein kinase and a natural binding partner, and wherein said disease is selected from the group consisting of lung cancer, ovarian cancer, breast cancer, brain cancer, intra-axial brain cancer, colon cancer, prostate cancer, Kaposi's sarcoma, melanoma, and glioma;

said method comprising the step of administering a quinazoline-based compound of formula I or III to said organism:



wherein:

(a) Z is oxygen, NX_1 , or sulfur, where X_1 is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(b) n is 0, 1, 2, 3, or 4;

(c) A_2 , A_3 , A_4 and A_5 are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of A_2 , A_3 , A_4 and A_5 is nitrogen, oxygen, or sulfur, said A_2 , A_3 , A_4 and A_5 is not substituted with R_6 , R_7 , R_8 or R_9 ;

A_1 is carbon or nitrogen;

(d) R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , R_8 and R_9 are independently selected from the group consisting of:

- (i) hydrogen;
- (ii) saturated or unsaturated alkyl;
- (iii) NX_2X_3 , where X_2 and X_3 are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;
- (iv) halogen or trihalomethyl;
- (v) a ketone of formula $-\text{CO}-\text{X}_4$, where X_4 is selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;
- (vi) a carboxylic acid of formula $-(\text{X}_5)_{n5}-\text{COOH}$ or ester of formula $-(\text{X}_6)_{n6}-\text{COOX}_7$, where X_5 , X_6 , and X_7 are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where $n5$ and $n6$ are each independently 0 or 1;
- (vii) an alcohol of formula $-(\text{X}_8)_{n8}-\text{OH}$ or an alkoxy moiety of formula $-(\text{X}_8)_{n8}-\text{OX}_9$, where X_8 and X_9 are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where $n8$ is 0 or 1, and where said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;
- (viii) $-\text{NHCOX}_{10}$, where X_{10} is selected from the group consisting of alkyl, hydroxyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties, wherein said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;
- (ix) $-\text{SO}_2\text{NX}_{11}\text{X}_{12}$, where X_{11} and X_{12} are selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties; and
- (x) a five-membered or six-membered heteroaryl or six-membered aryl ring moiety optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester moieties;
- (e) any adjacent R_3 , R_4 , and R_5 or any adjacent R_6 , R_7 , R_8 , and R_9 are fused together to form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety,

wherein said five-membered or six-membered heteroaryl or six-membered aryl ring comprises two carbon atoms of said quinazoline-based compound to which R₃, R₄, and R₅ or R₆, R₇, R₈, and R₉ are attached;

(f) R₁₁ and R₁₂ are independently selected from the group consisting of

(i) hydrogen;

(ii) saturated or unsaturated alkyl; and

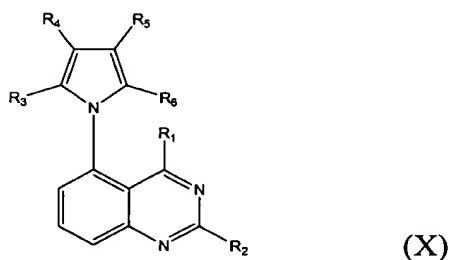
(g) Z' is carbon or nitrogen and R₁₃ and R₁₄ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member.

18. (Cancelled)

19. (Cancelled)

20. (Previously presented) A method of treating an abnormal condition in an organism in need thereof, wherein said abnormal condition is a disease associated with an aberration in a signal transduction pathway characterized by an interaction between a serine/threonine protein kinase and a natural binding partner, and wherein said disease is selected from the group consisting of lung cancer, ovarian cancer, breast cancer, brain cancer, intra-axial brain cancer, colon cancer, prostate cancer, Kaposi's sarcoma, melanoma, and glioma;

said method comprising the step of administering a quinazoline-based compound of formula X:

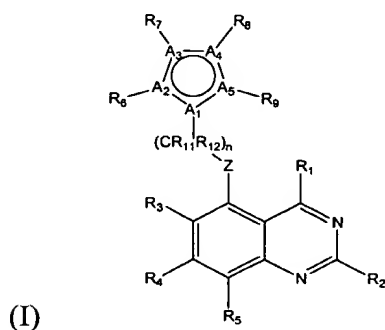


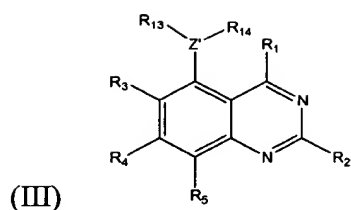
wherein

(a) R₁ and R₂ are independently selected from the group consisting of hydrogen and -NH₂, provided at least one of R₁ and R₂ is -NH₂;

- (b) R_3 , R_4 , R_5 , and R_6 are independently selected from the group consisting of
- (i) hydrogen;
 - (ii) saturated or unsaturated alkyl;
 - (iii) NX_4X_5 , where X_4 and X_5 are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;
 - (iv) halogen;
 - (v) $C(X_6)_3$, where X_6 is selected from the group consisting of fluorine, chlorine, bromine, and iodine; and
 - (vi) OX_7 , where X_7 is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and a six-membered aryl or five- or six-membered heteroaryl ring moiety.

- 21. (Original) The method of claim 17, wherein said organism is a mammal.
- 22. (Cancelled)
- 23. (Cancelled)
- 24. (Cancelled)
- 25. (Previously presented) The method of claim 17, wherein said serine/threonine protein kinase is RAF.
- 26. (Currently amended) A quinazoline compound having the formula I or III:





wherein:

(i) Z is oxygen, NX_1 , or sulfur, where X_1 is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(ii) n is 0, 1, 2, 3, or 4;

(iii) A_2 , A_3 , A_4 and A_5 are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of A_2 , A_3 , A_4 and A_5 is nitrogen, oxygen, or sulfur, said A_2 , A_3 , A_4 and A_5 is not substituted with R_6 , R_7 , R_8 or R_9 ;

A_1 is carbon or nitrogen;

(iv) R_1 and R_2 are independently selected from the group consisting of:

(a) hydrogen;

(b) saturated or unsaturated alkyl;

(c) NX_2X_3 , where X_2 and X_3 are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(d) halogen or trihalomethyl; and

(e) five-membered or six-membered heteroaryl ring moiety;

(v) R_3 , R_4 , R_5 , R_6 , R_7 , R_8 and R_9 are independently selected from the group consisting of:

(a) hydrogen, provided that at least one of R_3 , R_4 , R_5 , R_6 , R_7 , R_8 , and R_9 , and R_{10} is a non-hydrogen moiety if R_2 is $-NH_2$;

(b) saturated or unsaturated alkyl, wherein said R_6 is not methyl when R_2 is $-NH_2$ and when $n=1$;

(c) $NX_{13}X_{14}$, where X_{13} and X_{14} are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and six-membered aryl or heteroaryl ring moieties;

(d) halogen or trihalomethyl, wherein said R_8 is not chlorine or fluorine when R_2 is $-NH_2$ and when $n=1$;

(e) a ketone of formula $-CO-X_4$, where X_4 is selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;

(f) a carboxylic acid of formula $-(X_5)_{n5}-COOH$ or ester of formula $-(X_6)_{n6}-COOX_7$, where X_5 , X_6 , and X_7 are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where $n5$ and $n6$ are each independently 0 or 1;

(g) an alcohol of formula $-(X_8)_{n8}-OH$ or an alkoxy moiety of formula $-(X_8)_{n8}-OX_9$, where X_8 and X_9 are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where $n8$ is 0 or 1, and where said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(h) $-NHCOX_{10}$, where X_{10} is selected from the group consisting of alkyl, hydroxyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties, wherein said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(i) $-SO_2NX_{11}X_{12}$, where X_{11} and X_{12} are selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties; and

(j) a five-membered or six-membered heteroaryl or six-membered aryl ring moiety optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester moieties;

(vi) any adjacent R_3 , R_4 , and R_5 or any adjacent R_6 , R_7 , R_8 , and R_9 are fused together to form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety, wherein said five-membered or six-membered heteroaryl or six-membered aryl ring comprises two carbon atoms of said quinazoline compound to which R_3 , R_4 , and R_5 or R_6 , R_7 , R_8 , and R_9 are attached;

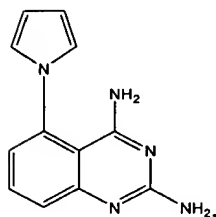
(vii) R_{11} and R_{12} are independently selected from the group consisting of

(i) hydrogen;

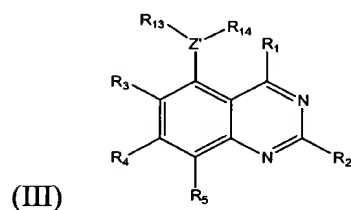
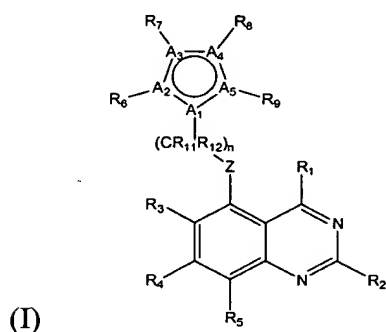
(ii) saturated or unsaturated alkyl; and

(viii) Z' is carbon or nitrogen and R₁₃ and R₁₄ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member;

with the proviso that the compound of formula (III) is not



27. (Currently amended) A quinazoline compound having the formula I or III:



wherein:

(a) Z is oxygen, NX₁, or sulfur, where X₁ is selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(b) n is 0, 1, or 2;

(c) A₂, A₃, A₄ and A₅ are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,

provided that if any of A₂, A₃, A₄ and A₅ is nitrogen, oxygen, or sulfur, said A₂, A₃, A₄ and A₅ is not substituted with R₆, R₇, R₈ or R₉;

A₁ is carbon or nitrogen;

(d) R₁ and R₂ are independently selected from the group consisting of:

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

(iii) NX₂X₃, where X₂ and X₃ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(iv) halogen or trihalomethyl; and

(v) five-membered or six-membered heteroaryl ring moiety;

(e) R₃, R₄, R₅, R₆, R₇, R₈ and R₉ are independently selected from the group consisting of:

(i) hydrogen, provided that at least one of R₃, R₄, R₅, R₆, R₇, R₈, and R₉, ~~and~~ R₁₀ is a non-hydrogen moiety if R₂ is -NH₂;

(ii) saturated or unsaturated alkyl, wherein said R₆ is not methyl when R₂ is -NH₂ and when n=1;

(iii) NX₄X₅, where X₄ and X₅ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(iv) halogen or trihalomethyl, wherein said R₈ is not chlorine or fluorine when R₂ is -NH₂ and when n=1; and

(v) -OX₇, where X₇ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and six-membered aryl or five- or six-membered heteroaryl ring moiety;

(f) any adjacent R₃, R₄, and R₅ or any adjacent R₆, R₇, R₈ and R₉ are fused together to form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety, wherein said five-membered or six-membered aryl or six-membered heteroaryl ring comprises two carbon atoms of said quinazoline compound to which R₃, R₄, and R₅ or R₆, R₇, R₈, and R₉ are attached;

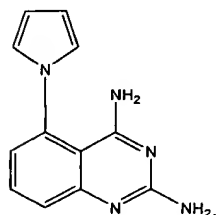
(g) R₁₁ and R₁₂ are independently selected from the group consisting of

(i) hydrogen; and

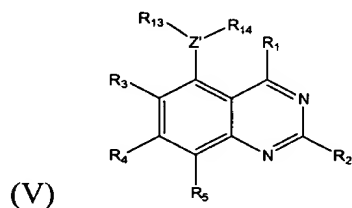
(ii) saturated or unsaturated alkyl; and

(h) Z' is nitrogen and R₁₃ and R₁₄ taken together form a five-membered or six-membered heteroaryl ring with Z' as a ring member, wherein said ring is optionally substituted with one, two, or three alkyl, halogen, trihalomethyl, carboxylate, and ester moieties;

with the proviso that the compound of formula (III) is not



28. (Previously presented) A quinazoline compound having the structure set forth in formula V:



wherein:

(a) R₁ and R₂ are independently selected from the group consisting of:

(i) hydrogen;

(ii) NX₁X₂, where X₁ and X₂ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl; and

(iii) benzyl;

(b) R₃, R₄, and R₅ are independently selected from the group consisting of:

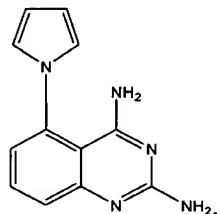
(i) hydrogen;

(ii) saturated or unsaturated alkyl; and

(iii) NX₃X₄, where X₃ and X₄ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(c) Z' is nitrogen and R₁₃ and R₁₄ taken together form a five-membered heteroaryl ring;

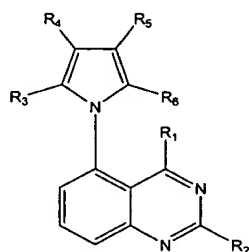
with the proviso that the compound of formula (V) is not



29. (Cancelled)

30. (Cancelled)

31. (Previously presented) A quinazoline compound having a structure set forth in formula X:



(X)

wherein

(a) R₁ and R₂ are independently selected from the group consisting of hydrogen and -NH₂, provided at least one of R₁ and R₂ is -NH₂;

(b) R₃, R₄, R₅, and R₆ are independently selected from the group consisting of

(i) hydrogen;

(ii) saturated or unsaturated alkyl;

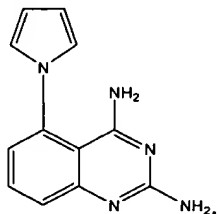
(iii) NX₄X₅, where X₄ and X₅ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;

(iv) halogen;

(v) C(X₆)₃, where X₆ is selected from the group consisting of fluorine, chlorine, bromine, and iodine; and

(vi) OX₇, where X₇ is selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and a six-membered aryl or five- or six-membered heteroaryl ring moiety;

with the proviso that the compound of formula (X) is not

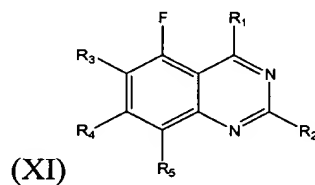


32. (Cancelled)

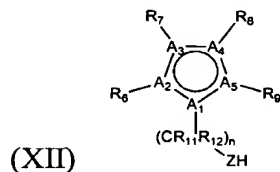
33. (Previously presented) A pharmaceutical composition comprising a quinazoline compound of any one of claims 26, 27, or 31 or salt thereof, and a physiologically acceptable carrier or diluent.

34. (Currently amended) A method for synthesizing a compound of claim 26, comprising the steps of:

(a) reacting a first reactant with a second reactant to yield said compound, wherein said first reactant has a structure of formula XI:



and wherein said second reactant has a structure of formula (XII):



wherein,

- (a) Z is oxygen or sulfur;
- (b) n is 0, 1, 2, 3, or 4;
- (c) A₂, A₃, A₄, and A₅ are independently selected from the group consisting of carbon, nitrogen, oxygen, and sulfur,
provided that if any of A₂, A₃, A₄ and A₅ is nitrogen, oxygen, or sulfur, said A₂, A₃, A₄ and A₅ is not substituted with R₆, R₇, R₈ or R₉;
A₁ is carbon or nitrogen;
- (d) R₁ and R₂ are independently selected from the group consisting of:
 - (i) hydrogen;
 - (ii) saturated or unsaturated alkyl;
 - (iii) NX₂X₃, where X₂ and X₃ are independently selected from the group consisting of hydrogen and saturated or unsaturated alkyl;
 - (iv) halogen or trihalomethyl; and
 - (v) five-membered or six-membered heteroaryl ring moiety;
- (e) R₃, R₄, R₅, R₆, R₇, R₈, and R₉ are independently selected from the group consisting of:
 - (i) hydrogen, provided that at least one of R₃, R₄, R₅, R₆, R₇, R₈, and R₉, ~~and R₁₀~~ is a non-hydrogen moiety if R₂ is -NH₂;
 - (ii) saturated or unsaturated alkyl, wherein said R₆ is not methyl when R₂ is -NH₂ and when n=1;
 - (iii) NX₁₃X₁₄, where X₁₃ and X₁₄ are independently selected from the group consisting of hydrogen, saturated or unsaturated alkyl, and six-membered aryl or heteroaryl ring moieties;
 - (iv) halogen or trihalomethyl, wherein said R₈ is not chlorine or fluorine when R₂ is -NH₂ and when n=1;
 - (v) a ketone of formula -CO-X₄, where X₄ is selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties;
 - (vi) a carboxylic acid of formula -(X₅)_{n5}-COOH or ester of formula -(X₆)_{n6}-COOX₇, where X₅, X₆, and X₇ and are independently selected from the group

consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n_5 and n_6 are 0 or 1;

(vii) an alcohol of formula $-(X_8)_{n_8}-OH$ or an alkoxy moiety of formula $-(X_8)_{n_8}-OX_9$, where X_8 and X_9 are independently selected from the group consisting of alkyl and five-membered or six-membered heteroaryl or six-membered aryl ring moieties and where n_8 is 0 or 1, and where said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(viii) $-NHCOX_{10}$, where X_{10} is selected from the group consisting of alkyl, hydroxyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties, wherein said ring moieties are optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester;

(ix) $-SO_2NX_{11}X_{12}$, where X_{11} and X_{12} are selected from the group consisting of hydrogen, alkyl, and five-membered or six-membered heteroaryl or six-membered aryl ring moieties; and

(x) a five-membered or six-membered heteroaryl or six-membered aryl ring moiety optionally substituted with one or more substituents selected from the group consisting of alkyl, halogen, trihalomethyl, carboxylate, and ester moieties;

(f) any adjacent R_3 , R_4 , and R_5 or any adjacent R_6 , R_7 , R_8 , and R_9 are fused together to form a five-membered or six-membered heteroaryl or six-membered aryl ring moiety wherein said five-membered or six-membered heteroaryl or six-membered aryl ring comprises two carbon atoms of the ring to which R_3 , R_4 , and R_5 or R_6 , R_7 , R_8 , and R_9 are attached;

(g) R_{11} and R_{12} are independently selected from the group consisting of

(i) hydrogen; and

(ii) saturated or unsaturated alkyl; and

(b) collecting a precipitate comprising said compound.

35. (Cancelled)

36. (Cancelled)

37. (Previously presented) The method of claim 34, wherein said first reactant and said second reactant are mixed in one or more solvents selected from the group consisting of dimethyl sulfoxide, potassium tert-butoxide, and sodium hydride.

38. (Original) The method of claim 34, wherein said ZH moiety is isothiocyanate.

39. (Original) The method of claim 38, wherein said first reactant and said second reactant are mixed in dichloromethane.

40. (Cancelled)

41. (Cancelled)